DOCUMENT RESUME

ED 414 011 PS 025 910

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TITLE Children's Concepts of Gender and Professions.
PUB DATE 1997-04-00
NOTE 29p.; Paper presented at the Biennial Meeting of the Society for Research in Child Development (62nd, Washington, DC, April 3-6, 1997).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Age Differences; *Childhood Attitudes; Children; Intermediate Grades; Occupations; Sex Differences; Sex Role; *Sex Stereotypes
IDENTIFIERS *Occupational Stereotypes

ABSTRACT

Past research has shown that young children assimilate the attitudes and concerns of their parents and other figures of authority regarding sex stereotypes. This study was undertaken to: (1) ascertain the prevalence and degree of sex stereotyping in 25 common careers and professions by elementary students; (2) compare all male students to all female students to determine if major differences exist in stereotypic attitudes; and (3) compare fourth- and sixth-grade students to determine if the older students show fewer stereotypic responses. A gender-professions survey was developed and administered to three classes of fourth graders and three classes of sixth graders in three school systems. Results showed that delineation by gender still exists in traditionally stereotyped professions; that males were more rigid in gender/profession assignments, whereas females were more likely to believe that many professions are less gender specific; and that sixth-grade students showed less gender stereotyping that did fourth-grade students. (Contains 26 references.) (EV)

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Running Head: CHILDREN'S CONCEPTS OF GENDER AND PROFESSION

Children's Concepts of Gender and Professions

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Author Note

I would like to thank Alex M. Pleshkewych for his assistance with the development and original implementation of this survey; Ellen Banks, Daemen College Psychology Department, for statistical assistance, critiques and encouragement; Cathy Buyea, Teri Joyce, Charles Sabatino, and Katherine Sullivan for their reviews; and the school administrators, teachers, and students who participated in the research.

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Abstract

Sex stereotyping of careers in previous generations was directly challenged by the women's rights movement resulting in public awareness and government legislation. A survey was developed and administered to classes at elementary and middle schools in Western New York to determine the effect these social changes have had on the attitudes of today's children toward stereotyping. This research compares fourth and sixth grade students, and compares male and female participants, to illustrate current trends.

Children's Concepts of Gender and Profession

General Overview of Research Material

Renowned Harvard paleontologist, Stephen Jay Gould recently said; "You only see through the light of your world views" (Shefftz, 1996). Gould could very easily have been focusing this address on stereotyping in todays society since people derive their stereotypical attitudes from what they observe in their own world. Research shows that attitudes delineating male and female specific stereotypes result from the repeated reinforcement of these attitudes by parents, teachers, peers, the entertainment media, advertising, and by the number of males and females observed in these occupations (Almquist, 1978; Glick, Wilk, and Perreault, 1995; Jackson, Hodge, and Ingram, 1994; Johnson, 1986; Macrae, Stangor, and Milne, 1994; Sandberg, Ehrhardt, Mellins, Ince, and Meyer-Bahlberg, 1987; Shamai, 1994; Taylor, 1995; Tibbetts, 1975).

Stereotyping is the self-perpetuating attitude and naive theory that there are major differences in the personal characteristics and abilities of persons to perform in a particular role. Such attitudes not only limit and distort reality, but also tend to funnel both males and females into traditional careers by restricting their options (Eagly and Steffen, 1984; Leichtman and Ceci, 1995; Macrae, Stangor, and Milne, 1994; Tibbetts, 1975).

Classification of occupations by gender is a contributing factor in career stereotyping and results from the observation that a particular career is either male-dominated, female-dominated or neutral by the apparent number of male or female practitioners within that career (Murrell, Frieze, and Frost, 1991). Sex-typing of a

career thus labels that career as a "man's job" or a "woman's job" on the basis of personality types and therefore perpetuates the sex stereotyping of that career as well as the differential status of males and females (Judd and Oswald, 1996; Schlossberg and Goodman, 1972).

The Development of Stereotypes

Parents and Family. Stereotypes are instilled by informal forces within the family, the school, the workplace, and society as a whole. These forces begin at birth and are reinforced by family members, particularly parents, and bolstered by other authority figures including teachers and religious leaders. Adult role models enforce behavior and attitudes that lead to the development of gender-based stereotyping in occupations. Often these role models imbue their own stereotypic attitudes through seemingly harmless behaviors; "Boys don't play with dolls" or "Girls shouldn't climb trees." These highly sex-typed activities and preferences are effectively communicated as early as three years of age (Getty and Cann, 1981).

Parents help children to understand work roles by providing models in their work history. The mother's educational level and employment history in particular, have significant impact on her children's attitudes. A mother who has an advanced education, or who has been employed in a non-traditional career might encourage her children to explore new options therefore providing them with more opportunity to experience non-traditional professions (Almquist, 1978; Sandberg et al., 1987).

Education. The classroom is a major influence on the development of stereotypes (Shamai, 1994). Even in preschool, the grouping of youngsters by gender increases stereotypic behavior in the children (Bigler, 1995).

By the time children begin kindergarten, they are aware of the gender roles they are expected to maintain, and children know what is expected of them as either a male child or a female child (Berndt and Heller, 1986; Bigler, 1995; Tibbitts, 1975). It also appears that the male stereotype develops earlier than the female stereotype (Berndt and Heller, 1986; Best, Williams, Cloud, Davis, Robertson, Edwards, Giles, and Fowles, 1977).

Research shows that the higher the educational level reached by an individual, the more liberal that individual tends to be regarding occupational stereotypes. This increase in liberal attitudes may stem from increased personal contact with non-traditional practitioners (Johnson, 1986). Yet occupational classification by gender is most prevalent in the male dominated professions requiring college education (Almquist, 1978; Sandberg et al., 1987).

The Biological Role. In Taylor's (1995) study on gender-role flexibility, the researcher found that gender differences are derived from several sources including biology and socialization. Younger children stereotype on a biological basis and are gradually influenced by environmental and social attitudes to develop gender role stereotypes. Taylor indicates that gender stereotyping tends to decrease with age while social stereotyping tends to increase in what is termed a "developmental shift."

Age. Researchers agree that there is a change in attitudes regarding gender stereotyping with increased age. As they grow older, children generally recognize that there are many similarities in characteristics and abilities between males and females which leads to greater flexibility of gender stereotypes (Berndt and Heller, 1986; Best et al., 1977; Carter and Patterson, 1982; Sandberg et al., 1987). However, this gender flexibility is tested by an apparent increase in social stereotyping of male

and female roles as children reach adolescence (Best et al., 1977; Getty and Cann, 1981).

International phenomenon

This delineation by gender and sex-trait stereotyping appears to be an international concern. A comparative study done in the United States, England and Ireland by Best et al. (1977) indicates a similar knowledge of gender stereotyping in children from all three countries. It was noted that male children in England developed stronger female stereotypes, and at an earlier age, than all children in the other countries. Children in the rural school setting in Ireland appeared to learn the nature of sex stereotyping at a much slower rate. These differences were attributed to the particular socialization processes within each cultural group (Best et al., 1977).

Rennie and Dunne (1994) noted that gender stereotyping of science-related careers in Fiji is evident in the lack of women represented in these fields. This under representation is due not only to the social stereotyping of women in regard to the sciences, but also to the cultural stereotyping of the woman's role as homemaker that exists in Fiji.

Does stereotyping still exists today?

It is evident that the attitudes of the 1970's toward men and women and the stereotypic careers of each gender still exist to some extent in today's society even though progress has been made (Fitzpatrick and Silverman, 1989).

It is also difficult to determine if professions are stereotyped because of the gender representation within each profession, or if the sex ratios are due to the stereotyping of those professions. No matter the reason, sex-typing of occupations, and therefore occupational stereotyping, is alive and thriving in regard to many occupations, and is very likely to persist (Glick, Wilk, and Perreault, 1995; Panek,

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Rush, and Greenwalt, 1977; Shamai, 1994; Shinar, 1975).

Why should anyone choose a non-traditional career?

Traditionally, when making career choices, boys' preferences included a large variety of occupations, whereas girls most often selected the two most traditional female professions of nurse and teacher (Getty and Cann, 1981). The socialization of women into the historically low-paying jobs such as typist, secretary, librarian, housekeeper, elementary school teacher, and social worker limits their economic status and in turn limits their social status in our money-conscious society. Therefore, some women choose traditionally male careers because of economic considerations since these careers tend to provide better wages (Murrell et al, 1991).

Because these traditionally male-dominated careers have generally been considered influential and most desirable, it was difficult for women to infiltrate the "old boy" networks and establish themselves as professionals in these fields. These male-dominated careers have been the traditionally high-paying fields and tend also to require a higher level of education (Almquist, 1978; Sandberg et al., 1987). Because of the time required to attain the appropriate educational level, the aspirations for marriage and family create a potential conflict for women (Buccholz and Campbell, 1996; Murrell et al., 1991; Sandberg et al., 1987). These stereotypically male careers include lawyer, doctor, scientist, politician, engineer, architect, and police officer (Getty and Cann, 1981; Murrell et al., 1991).

Research Hypothesis

Over the past thirty years, many politically-active groups have lobbied to change legislation and influence society as a whole to break down the dividing lines between males and females. It was anticipated by those groups that a change in our

society's overall attitudes would lead to a more equitable position for women in our world. The discriminating attitudes of the 1970's toward men and women and their career opportunities still exist even though some progress is evident (Fitzpatrick and Silverman, 1989).

Past research has shown that young children assimilate the attitudes and concerns of their parents and other figures of authority regarding these social attitudes. Male children have been found to develop stronger sex stereotypes at an earlier age than do female children, and these stereotypic attitudes in all children tend to lose their influence as the children grow older (Berndt and Heller, 1986; Best et al., 1977; Carter and Patterson, 1982; Sandberg et al., 1987).

This research was initiated in order to: (a) ascertain the prevalence and degree of sex stereotyping in 25 common careers and professions by elementary students, (b) compare all male students to all female students to determine if major differences exist in stereotypic attitudes, and (c) compare fourth and sixth grade students to determine if the older students show fewer stereotypic responses.

Method

Procedure

A gender-professions survey was developed to be administered to three classes of fourth graders and three classes of sixth graders in three corresponding school systems. It was decided that a survey would allow the researcher to obtain data from a large number of children in a controlled setting, with a limited number of variables. The school room setting would also lend itself to a more serious approach for the students and would therefore result in more factual data.

A male assistant was asked to join the researcher since it would seem logical

to have both sexes represented in this setting. However, a male assistant was not available to visit the other schools and the researcher continued the study alone. Past research demonstrated that this would be unlikely to affect the survey results (Best et al., 1977).

The Instrument

The survey was written to include 25 different professions. Approximately one-third of the professions would represent traditionally male careers, approximately one-third traditionally female careers, and approximately one-third were considered to be either new careers or traditionally gender neutral. Each career was selected on the following criteria: (a) the career is traditionally male stereotyped or traditionally female stereotyped or gender-neutral (non-stereotyped); (b) students of this age group would most likely have encountered persons in this career, or have knowledge of people who might be in this career; and (c) career descriptions could be written in non-gender specific vocabulary at an understandable level for this age group. The titles and descriptions were compiled and sorted in a random order.

Students were given answer sheets listing each career next to the international symbols for male and female.

The administration of the survey to two individual children served as a pilot for the class observations. This proved beneficial since there were problems that became evident very early in the pilot survey. The first pilot participant, a six-year-old female, strongly objected to having to answer either "male only" or "female only" to the career choices. The survey was changed to include "both" as a possible answer. The second pilot participant, a four-year-old male, was given the survey, but his immaturity and lack of understanding and experience made his

results insignificant. Although the six-year-old child understood the careers and the descriptions of each, it was agreed that the survey would have more significant results if administered to children approximately ten years of age.

Students were surveyed in their classrooms along with their classmates. An answer sheet was handed out to each of the students along with a novelty pencil to be used on the survey. The children listened to a brief non-gender defined description of each profession, for example: Librarian: This person keeps records and maintains the books, videotapes and audio recordings in a library. The students were instructed to mark the symbols on their answer sheets to indicate whether they felt that a person capable of performing each specific job was either male or female, or both. Children were also asked to state their parents' occupations and their own career plans. There was time for any questions the student might have. The survey meeting lasted approximately 30 minutes in each classroom.

Participants

Completed questionnaires were obtained from 123 students (57 boys/ 66 females; 60 fourth graders/ 63 sixth graders) from two public suburban schools and one urban private school. Two additional questionnaires were eliminated from data analysis for failure to follow the instructions. Informed consent was obtained from the students and their parents.

Results

The data were reviewed and general conclusions were recorded. The research supported all three of the original research hypotheses:

1. Delineation by gender still exists in traditionally stereotyped professions.
2. Males were more rigid in gender/profession assignments, whereas females

were more likely to believe that many professions are less gender specific.

3. Sixth grade students showed less gender stereotyping than did fourth grade students.

Both age differences and gender differences in career stereotyping were found to be significant on Chi-Square tests (Age, $\chi^2 = 38.14$, df=2, $p<.001$; gender, $\chi^2 = 60.02$, df=2, $p<.001$. It was also determined that the students' career goals tended to reflect the background of their families.

Summation of Data and Graphs - Individual Schools

Immediately following each individual school visit, the data were recorded. The individual class groups were divided by male and female students and graphs were produced to show comparisons. These graphs were sent to the teacher and students in each class. Color graphics were used to make simple visual analysis easier for the students. No explanation or analysis of the data was given other than the graphs themselves.

Summation of Data and Graphs - Comparisons

All data groups were tallied in order to formulate comparison graphs. Graphs were completed for: (a) "Male Only" responses and "Female Only" responses from all students, (b) Percentage of "Both" responses from all male students versus all female students, (c) "Male Only" responses from all male students versus all female students, (d) "Female Only" responses from all male students versus all female students, (e) Percentage of "Both" responses from all fourth grade students versus all sixth grade students, (f) "Male Only" responses from all fourth grade students versus all sixth grade students, and (g) "Female Only" responses from all fourth grade students versus all sixth grade students.

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A visual analysis of the graphs listed above indicate support of the original research statements. There continues to be a difference between the attitudes of male and female students regarding gender stereotypes in careers and professions. Female students appear to believe that they will have more opportunity in formerly typically male-dominated careers and professions. Males indicate more rigidity in gender/profession assignments, whereas females are more likely to believe that many professions are non-gender specific.

Participants' plans for future careers

Data on parents' occupations were analyzed in relation to the children's intended careers. Girls with non-traditional career plans were significantly more likely to have mothers with non-traditional careers. This effect was absent for boys, since no boys specified non-traditional career choices. The modal career choice for girls was "doctor" while for boys it was "professional athlete."

Discussion

The Overall Response

When all "Male Only" responses and all "Female Only" responses were analyzed, the traditional roles of males and females were maintained (see Figure 1). For this study, careers that had responses of 50% or more were considered gender stereotyped.

Male stereotyped careers include: (a) electrical engineer (65%), (b) airplane pilot (55%), (c) auto mechanic (68%), and (d) truck driver (71%). Female careers include: (a) surgical nurse (52%), (b) flight attendant (54%), (c) librarian (61%), and (d) secretary (67%). Telephone operator was classed as "Female Only" by 49% and could also be considered as female stereotyped.

It is interesting to note that the major career choices of (a) police officer (26%), (b) doctor (11%), (c) lawyer (24%), (d) judge (23%), and (e) dentist (16%) were not male stereotyped as in past studies (Getty and Cann, 1981; Murrell et al., 1991).

The traditionally female career of (a) elementary school teacher (21%), (b) middle school English teacher (21%), (c) restaurant server (26%), (d) and sales person (10%) were not defined as such in this study (Getty and Cann, 1981; Murrell et al, 1991).

These results would indicate a relaxing of the delineation in many of the traditional gender-specific professions.

Male-Female Comparison

A difference was observed between the attitudes of male and female students. Quite strikingly, the female students showed a higher percentage of "Both" responses for all 25 professions used in the study (see Figure 2). The "Both" response would indicate an absence of gender stereotyping and appears to acknowledge the fact that girls believe that they will have more opportunity in formerly stereotyped male careers and professions.

Boys chose the "Male Only" response for all 25 professions more frequently than their female counterparts (see Figure 3). This would support the hypothesis that males hold stronger gender delineation in both traditionally male and female careers.

Male and female students chose "Female Only" answers at a similar rate (see Figure 4). However, female students rated five of the traditionally female careers at a significantly lower rate than did their male counterparts. Females chose "Female Only" responses: (a) 15% less for surgical nurse, (b) 20% less for flight attendant, (c) 7% less for librarian, (d) 13% less for secretary, and (e) 10% less for telephone

operator as compared to boys' responses. In only one career, that of sales person, did females give a significantly higher (5%) "Female Only" response. These attitudes would also indicate the relaxation of female students stereotypic attitudes and a new and stronger attitude that they are capable of performing more than the traditional roles reserved for women.

Fourth Grade-Sixth Grade Comparison

The percent of "Both" responses from all sixth grade students were higher or equal to the fourth grade answers in 20 of the 25 professions (see Figure 5). Again, the "Both" response was used as an indication that there is no gender stereotype inferred. This would appear to support earlier research indicating that stereotypical response decreases with an increase in student age.

The sixth graders' "Male Only" responses were significantly lower than the fourth graders' responses in ten of the 25 careers (see Figure 6). These ten careers include: (a) electrical engineer, (b) chemist, (c) lawyer, (d) airplane pilot, (e) advertising executive, (f) auto mechanic, (g) judge, (h) truck driver, (i) college professor, and (j) chef. Only "postal worker" was significantly more highly stereotyped by sixth grade students than fourth graders. The remaining 14 careers had percentages the same or similar in both grades. This would indicate a relaxation of the male stereotyping of these professions as the students gain more experience and age.

"Female Only" responses from sixth graders were similar to those of the fourth grade students in 21 careers (see Figure 7). In only two cases did sixth graders rate the careers as female stereotyped on a higher percentage than did fourth graders; elementary school teacher and sales person. Fourth graders rated only "surgical nurse" and "high school math teacher" as more highly female stereotyped than

their sixth grade counterparts. It would appear that the relaxation of male stereotyping does not carry over to the female stereotypic careers at this age.

Comments on Problems

The administrator at one elementary school made a request to have the term "sex stereotype" changed to "gender stereotype" in the parental consent form. It was the administrator's feeling that parents would object to the existing terminology but would not take offense if it were changed.

This observation may have been very accurate since the packet from another elementary school was returned by the principal with the explanation that: "The topic of sex stereotyping and gender bias in elementary school students toward career objectives and professional goals is not one... consider[ed] appropriate for [our elementary school students]."

The teacher at the associated middle school, however, proceeded to administer the survey to the sixth grade students. Because this survey was taken without the researcher's presence, and in the absence of a controlled setting, the results were not included in the data analysis. It was also unacceptable because permission was withheld by the administration for the survey in the associated fourth grade class.

In addition to the 123 student surveys analyzed in this study, two individual surveys were received but data were not included. The first of these was from a fourth-grade male student who became confused and lost track of the career sequence. The student brought this to the attention of the researcher during the administration of the survey; the answer sheet was marked to indicate the problem, and the student was asked to continue in the proper place on the answer sheet. After the answer sheets were collected, the problem sheet was noted and removed.

The second survey that was not included in the data was submitted by a fourth-grade female. This disqualification resulted from what appeared to be prank responses. Of the 25 expected answers on the survey, 19 were directly opposite, and sixteen of these were the only occurrence in the entire survey group. This student gave "male only" responses for typically female careers such as: surgical nurse, flight attendant, librarian, secretary, and telephone operator. "Female only" responses were received for typically male careers such as: police officer, doctor, electrical engineer, chemist, lawyer, auto mechanic, postal worker, dentist, and truck driver.

At first it was speculated that the student might have misunderstood the direction to place an "X" to mark the symbol representing those whom they thought were capable of performing the indicated career, and marked the symbol to indicate the gender that was not capable. If this were so, then no symbol would be marked to indicate a "both" answer. However, there were six instances where both symbols were marked to indicate both sexes could perform those particular careers.

Although several other surveys included contraindicated responses, this was the only survey that was not included.

Conclusions

As the research indicates, and this survey supports, there continues to be a difference between the attitudes of male and female students regarding gender stereotypes in careers and professions. Female students, however, appear to believe that they will have more opportunity in formerly male-dominated careers and professions. Males indicate more rigidity in gender/profession assignments whereas females are more likely to believe that many professions are non-gender specific. Children tend to relax these stereotypes as they grow older due to a greater awareness of the abilities and competencies of both sexes. It appears, however, that

stereotypes for males are relaxed sooner than stereotypes for females.

Further Research

School districts were chosen because of their accessibility and to maintain the variables of economic status and ethnic background. This would facilitate a long term study if the researchers determined this to be beneficial.

These schools tend to have students who continue within their district schools from kindergarten to high school graduation. The survey could be administered to most of the same students again within the next six years as they progress through the higher grades. Also, a comparative study could be initiated to support these findings or to assess any variation of attitudes in fourth and sixth graders over the next several years.

The three districts were also chosen for their overall economic makeup: a private urban school system whose students come from upper middle class families with predominately professional parents; and two middle class suburban public school districts whose families are primarily blue collar. However, an analysis to compare or contrast each district on the basis of social status was not done at this time.

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Figure Captions

Figure 1. Percent male only and female only responses from all students.

Figure 2. Percent both responses from all male students versus all female students.

Figure 3. Percent male only responses from all male students versus all female students.

Figure 4. Percent female only responses from all male students versus all female students.

Figure 5. Percent both responses from all fourth grade students versus all sixth grade students.

Figure 6. Percent male only responses from all fourth grade students versus all sixth grade students.

Figure 7. Percent female only responses from all fourth grade students versus all sixth grade students.

Figure 1. Percentages of "Male Only" and "Female Only" responses from All Students.

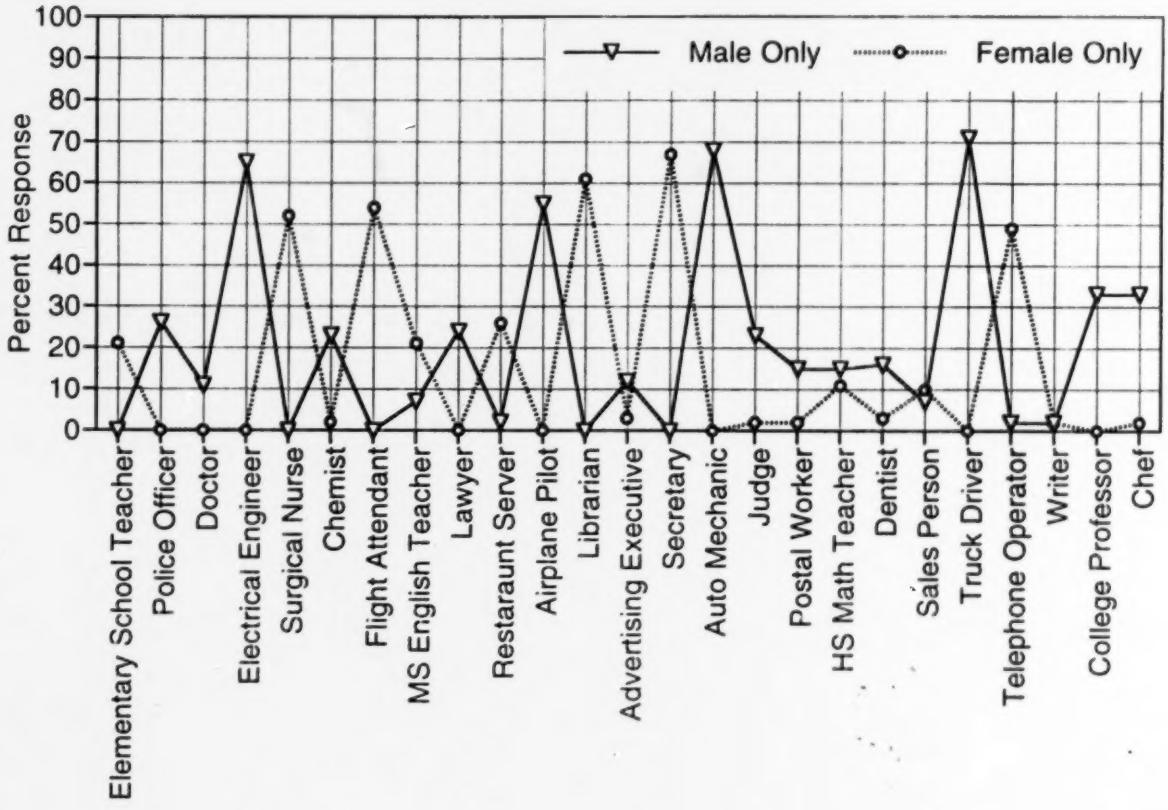

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Figure 2. Percent "Both" Response from All Male Students versus All Female Students.

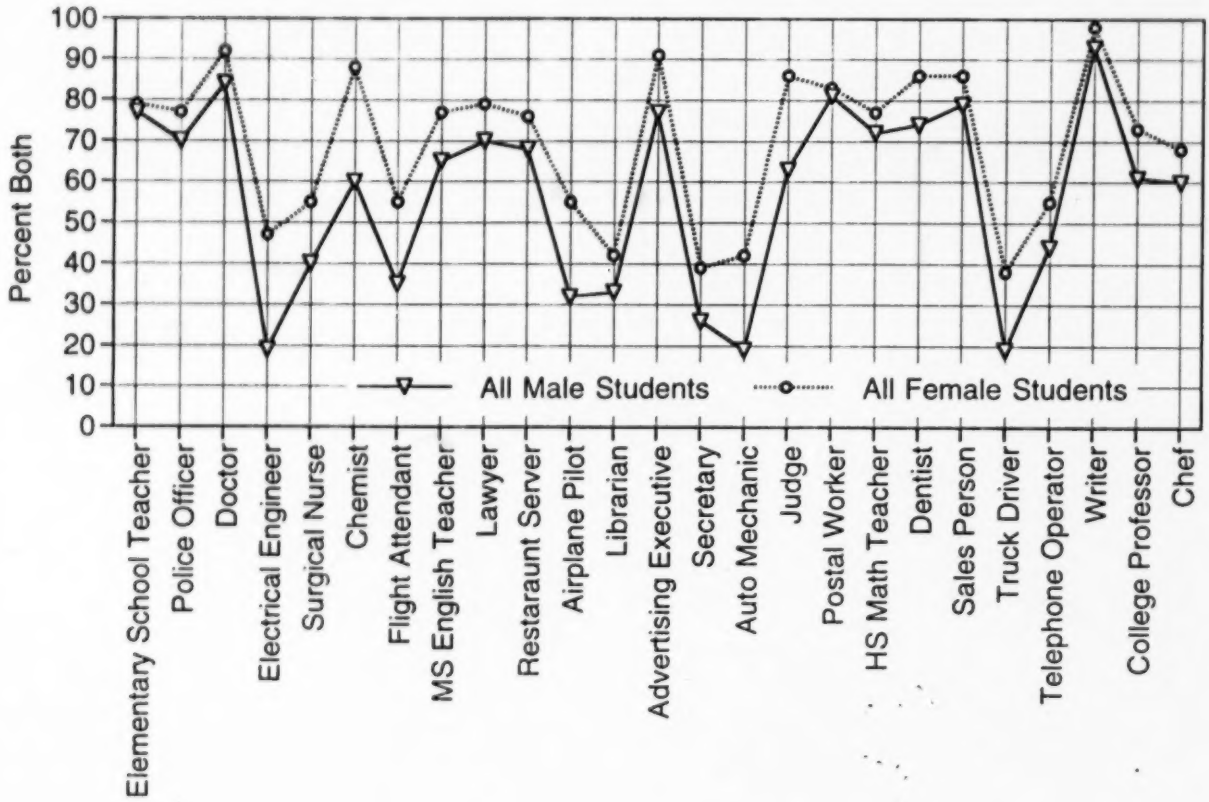


Figure 3. "Male Only" response from All Male Students versus All Female Students.

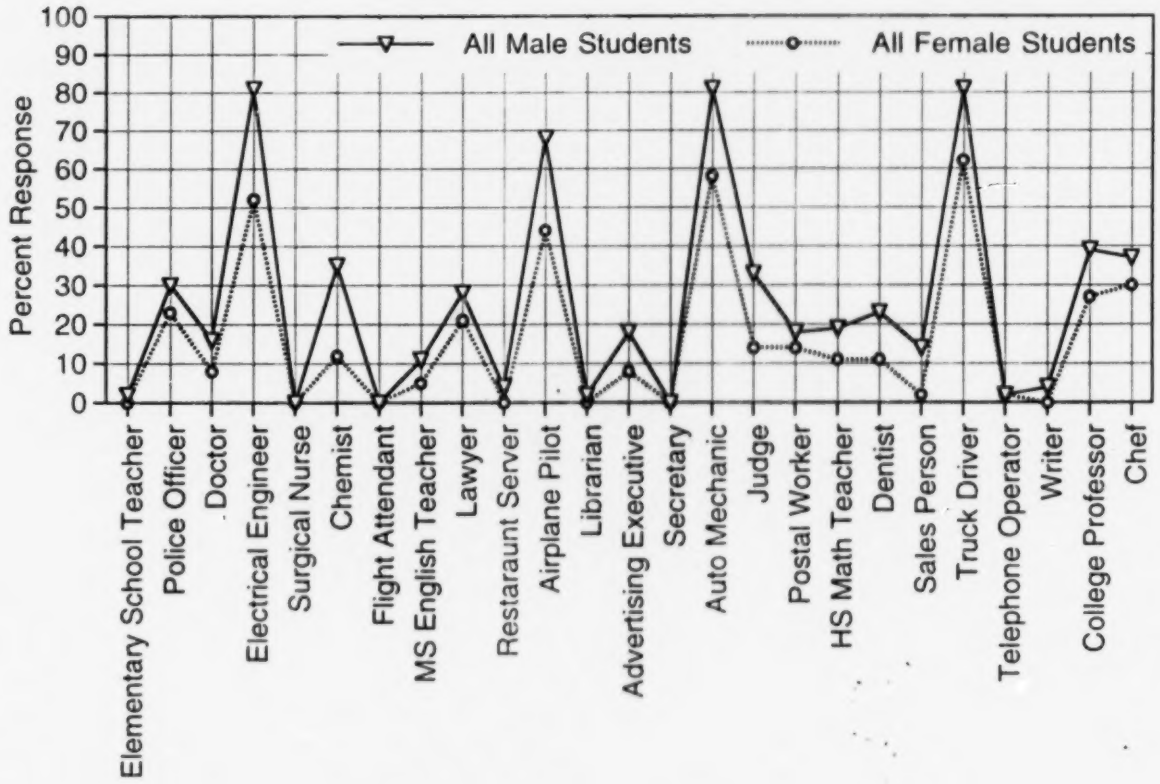


Figure 4. "Female Only" response from All Male Students versus All Female Students.

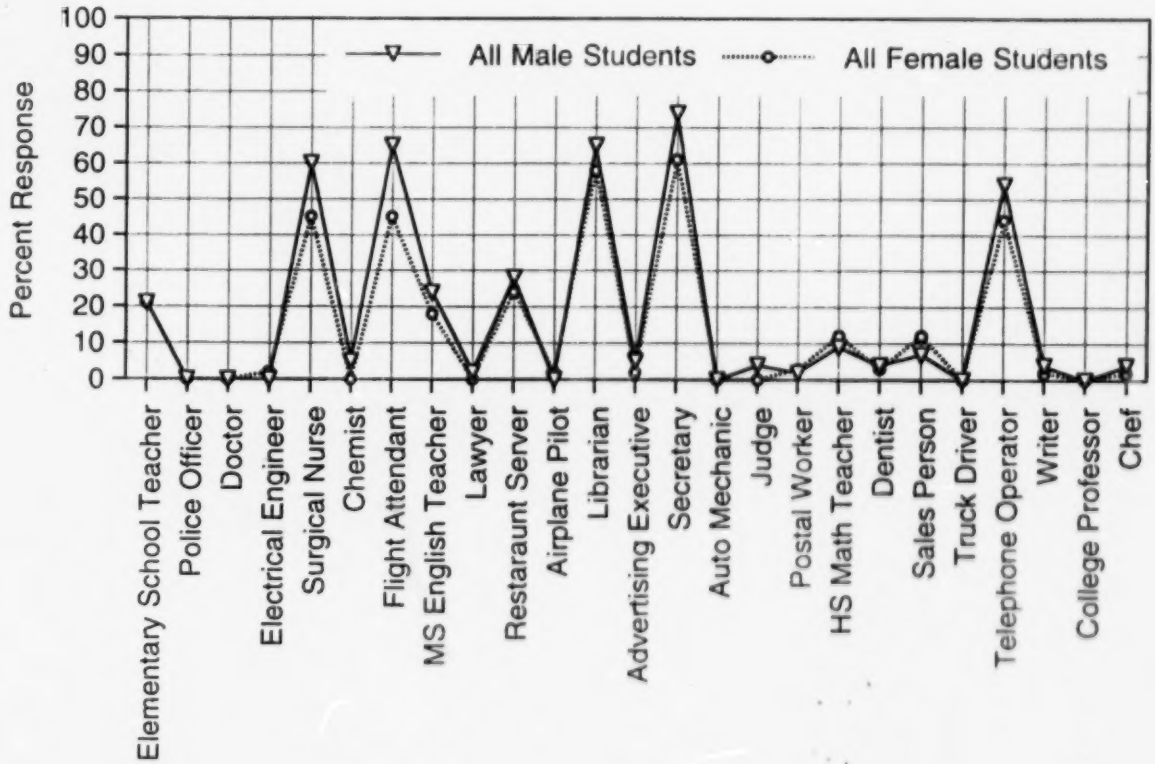


Figure 5. Percent of "Both" Responses from All Fourth Grade Students versus All Sixth Grade Students.

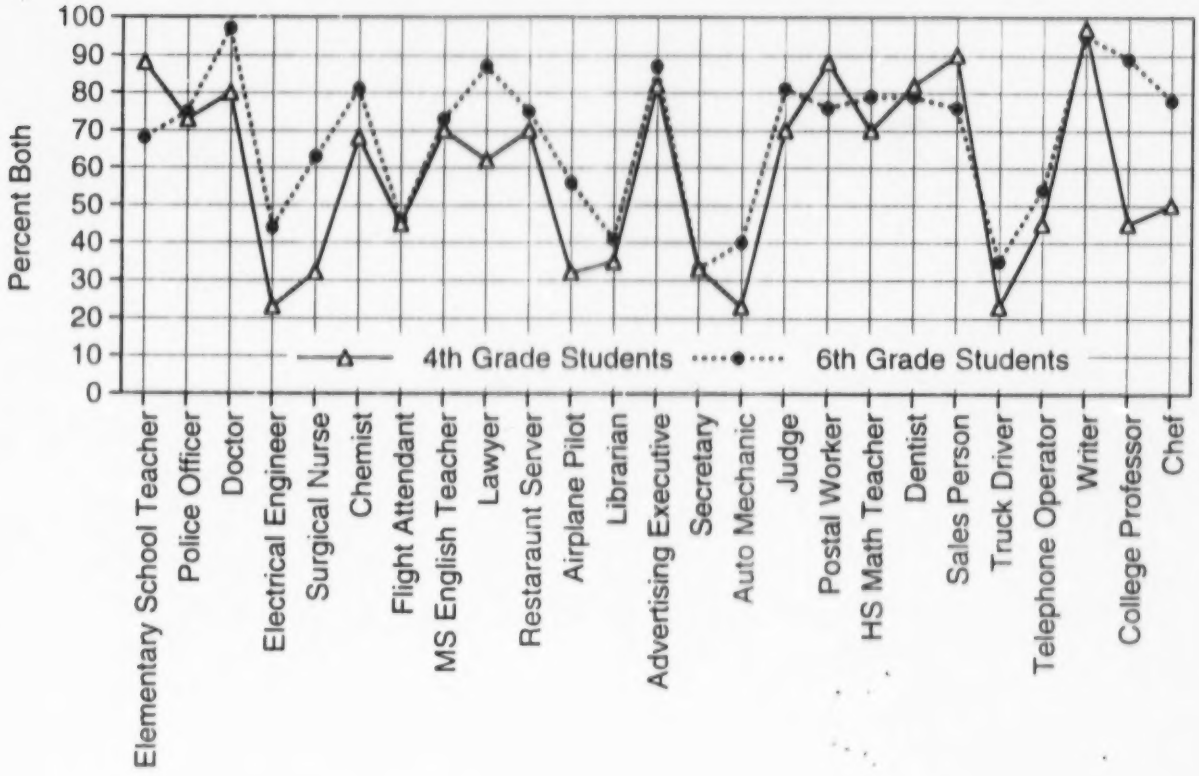
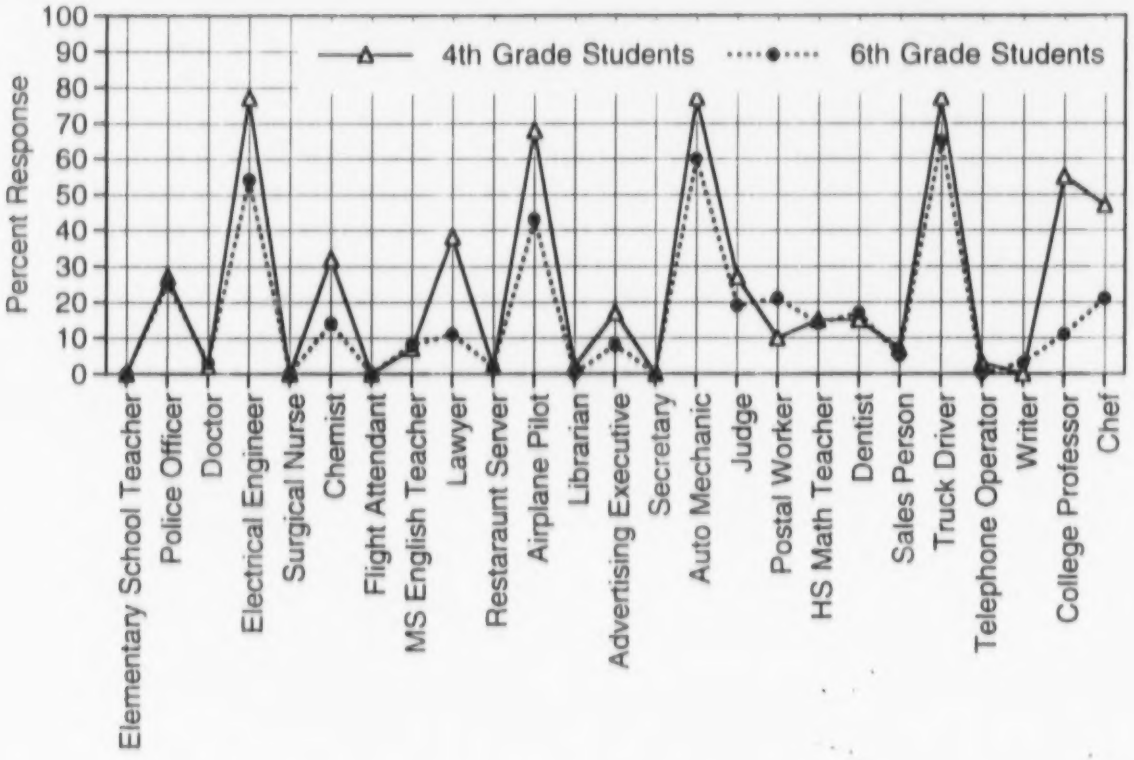
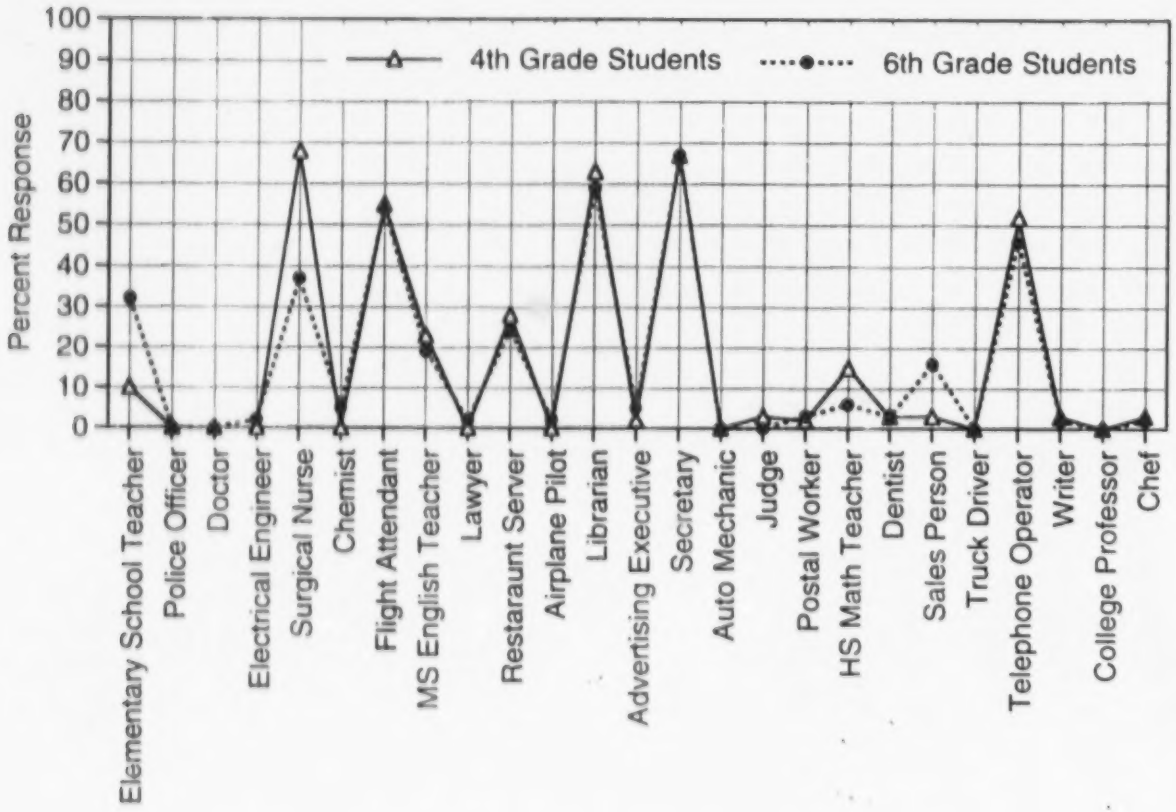


Figure 6. "Male Only" response from All Fourth Grade Students versus All Sixth Grade Students.



gure 7. "Female Only" response from All Fourth Grade Students versus All Sixth Grade Students.



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